

CLAIMS

What is claimed is:

Sub B1
5 1. An optical fiber splicer comprising:
a pair of retaining means for retaining optical fibers to be spliced;
abutment and pressure-contact means for sliding terminal portions
of the optical fibers in mutually opposite directions along a groove of V-shaped
cross-section, producing substantially equal elastic forces in the terminal
portions, bringing the terminal portions into abutment, and bringing the abutted
terminal portions into pressure contact.

10

00717733 112100
2. An optical fiber splicer according to claim 1, wherein the
abutment and pressure-contact means is a drive mechanism for moving a block
formed with the groove of V-shaped cross-section.

15

3. An optical fiber splicer according to claim 1, wherein the
abutment and pressure-contact means is a rotating mechanism for rotating the
pair of retaining means.

20

4. An optical fiber splicer according to any of claims 1 to 3,
further comprising a pressure limiting mechanism for limiting pressure applied
by the abutment and pressure contact means to a prescribed value.

25

5. An optical fiber splicing method comprising:
a step of sliding terminal portions of optical fibers to be spliced
along a groove of V-shaped cross-section in mutually opposite directions and
producing substantially equal elastic forces in the terminal portions; and
a step of bringing the terminal portions into abutment and then
bringing the abutted terminal portions into pressure contact.

30

6. An optical fiber splice structure comprising terminal portions of
optical fibers spliced in a groove of V-shaped cross-section under pressure
contact and exertion of substantially equal elastic forces.